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Business Finance Assignment 1-Unit 1 & 2

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1]A] D] 2A] A] 3A] D] 4A] B

5A] i) Sales - Costs = EBIT = 2500 - 1500 = 1000
Less Taxes (40% of 500) = 400
NOPAT = 600
ii) PV of Inflow 600/1.2 = 500
NPV = PV of Outflow - PV of Inflow
ii) NPV will go up.

6A] 1] Efficiency ratios measure a company's ability to use its assets and manage its liabilities effectively in the current period or in the short-term.
2] Although there are several efficiency ratios, they are similar in that they measure the time it takes to generate cash or income from a client or by liquidating inventory.
3] Efficiency ratios include the inventory turnover ratio, asset turnover ratio, and receivables turnover ratio.
4] These ratios measure how efficiently a company uses its assets to generate revenues and its ability to manage those assets.

7A] Following are the limitations of ratio analysis.
i] Doesn't consider the size of the Business.
ii] Doesn't take into account Contingent Liability
iii] Doesn't incorporate Uniform Accounting Policies.
iv] Susceptible to Creative Accounting.
v] Cannot use to compare different industries.
vi] Only based on historicals.
vii] Doesn't consider the impact of Inflation.

viii] Doesn't Consider Impact of Market Conditions.
ix] Failure in capturing the impact of seasonality.
x] Considers the position of the business on a particular date.

A8] i] Different industry inherent riskiness. Geared Beta might be different because of different debt ratio Brand value. Some stocks are used more for speculative purposes hence more volatile.

ii] Geared Beta = Ungeared beta + (1 + D/E * (1-Tax))
1.1 = Ungeared beta + (1 + 1/2 * 7)
Ungeared beta = 0.8148.
New geared beta = 0.8148 + (1 + 2/2 * 7) = 1.385

A9] B

A10] i]
1) There is sometimes a disconnect between the owners of the firm (shareholders) and the management of the firm.
2) Managers don't always act in the interest of shareholders wealth. This is called an agency problem and occurs when the interest of managers is not aligned with the interest of shareholders.
3) The problem is that the directors are often received as having their own interest that are at odds with those of the shareholde

3) The problem is that the directors are often perceived as having their own interests that are at odds with those of the shareholders.

4) They might have an interest in enhancing their own rewards at the expense of the shareholders or of avoiding acceptable risks in order to put their job security before the wellbeing of the shareholders.

ii)

Given : Price of the share = 70

$Div_0 = 10$, Growth = 8%, Risk free rate (R_f) = 6%

Risk Premium ($R_m - R_f$) = 5%

Expected Dividend $Div_1 = Div_0 * (1+g) = 10 * 1.08 = 10.8$

$Re = (Div_1 / Price) + g = (10.8/70) + 0.08 = 23.43\%$

Now, as per CAPM,

$Re = Rf + (Rm - Rf) * Beta$

$23.43 = 6 + 5 * Beta$

$\therefore Beta = 3.486$

Now, systematic risk is increased by 80% i.e. Beta is increased by 80%.

New Beta = 6.275

So, New $Re = 6 + 5 * 6.275 = 37.375\%$

New share price = $Div / (Re - g)$

$= 10.8 / (37.375 - 0.08)$

$= 36.74$

Hence share price is expected to fall from current level of Rs 70 to Rs 36.74 i.e. by 33.23%

11A] i] Beta calculates measure systematic risk, calculates the returns that you/company has made against the market.

$\beta_i = \frac{\sigma_{im}}{\sigma^2_{im}}$ OR $\beta_i = \rho_{im} \frac{\sigma_i}{\sigma_m}$

ii] A value of beta in excess of 1 indicates a stock that has, historically, amplified the return of the whole market (positive or negative)

A beta close to zero would indicate a stock that provided a more stable return than the market as a whole.

A negative beta would signify a stock whose performance was counter cyclical, offsetting the overall market experience.

iv) Treasury bills and commodities tend to have low or zero betas.

12A]

WACC = $\frac{\text{Market value of debt}}{\text{Market value of debt + equity}}$ x net cost of debt

+ $\frac{\text{Market value of equity}}{\text{Market value of debt + equity}}$ x cost of equity

A13] i] At IRR, PV of Cash Outflows = PV of Cash inflows.
Hence, cost of Project = ₹40,000 × 2.855 = ₹1,14,200

ii] Profitability index at cost of capital = 1.06
1.064 = PV of Cash Inflows at cost of capital / 1,14,200

iii) ~~Cal~~ PV of Cash Inflows at cost of capital = ₹121509
NPV of cost of capital = ₹121509 − ₹114200 = ₹7309

iii) Cumulative PV. AR at cost of capital (1-4)
= PV of Cash Inflows / Annual Cash inflows
= 121509 / 40000 = 3.038

iv) Payback period = 114200 / 40000 = 2.855 year

A14] a) Current Ratio = Current Assets / Current Liabilities
The current ratio is a liquidity ratio that measures a company's ability to pay short-term obligations or those due within one year.

b) Debtors Turnover Ratio = (Debtors receivables trade) / Credit Sales
The debtors turnover ratio measures the efficiency with which a company is able to collect on its receivables are ~~converted to cash~~ the credit it extends to customers.

ii] The finance manager should trust the quick ratio.

Quick ratio = (Current Assets - inventories) / Current Liabilities

3A] i)

Investors might buy the shares of this company for the following reasons:

- To diversify the portfolio
- To maximise return as they would be believing in earning higher returns.
- Other reasons specific to the investor e.g. strategic holding, own faith and belief.

The suitable cost of capital is 8% * 0.5 + 4% * 0.5

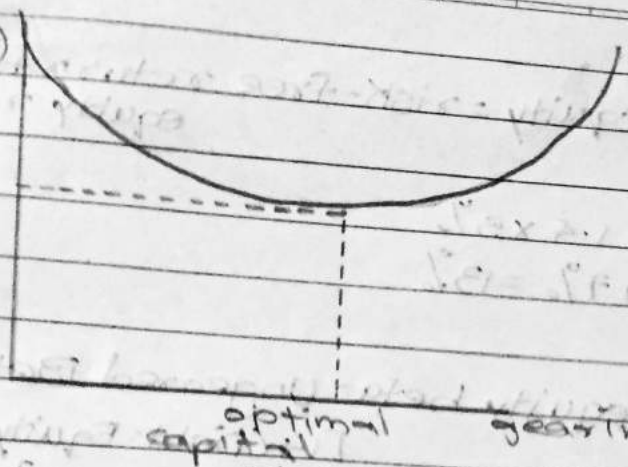
= 0.08 x 0.5 + 0.04 x 0.5

= 0.04 + 0.02

= 0.06

= 6%

ii] Debt is cheaper than equity finance, so as gearing increases, the WACC should fall. However, increasing the proportion of debt finance increases the risk to shareholders so shareholders demand a greater return for this increased risk. Therefore, beyond a certain level of gearing, the downward effect on the WACC of increasing the debt finance in the business will be more than offset by the increase in the return required by shareholders

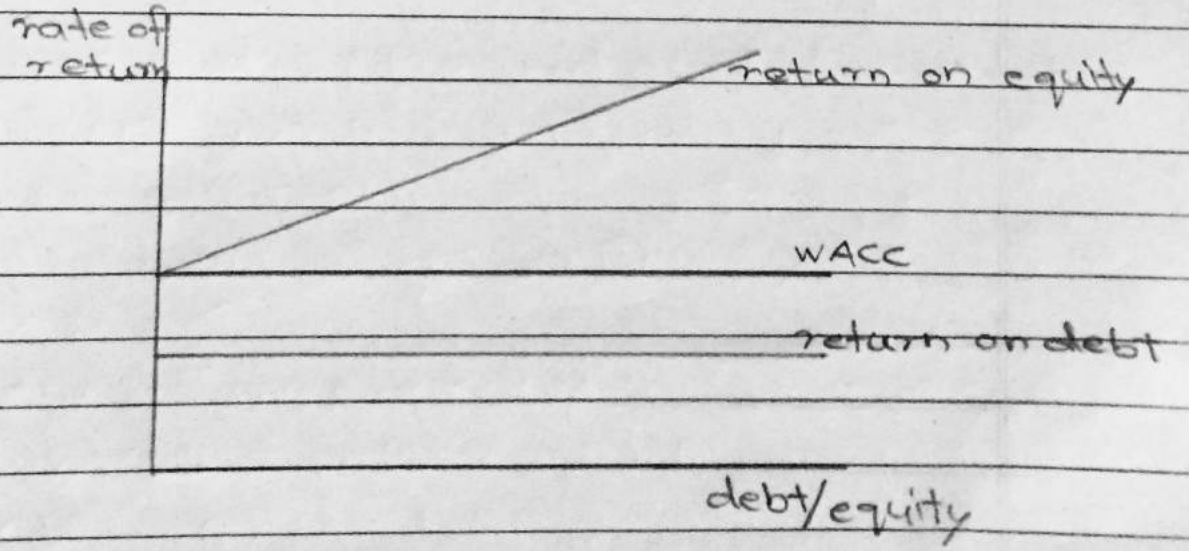


iii] First proposition of Modigliani and Miller: The market value of any firm is independent of its capital structure.

The following are the assumptions:

- There are no taxes in the economy.
- Unlimited personal and company borrowing is possible at the same rate of interest.
- Debt is risk-free.
- There are no agency costs.
- There are no information asymmetries.

iv]



WACC remains constant as gearing increases. As gearing increases, the cost of equity increases by just enough to offset the increasing proportion of the cheaper debt.

v] a) cost of equity = risk-free return + beta * equity risk premium

= 6% + 1.4 x 5%
= 6% + 7% = 13%

b) Geared equity beta = Ungeared Beta x [1 + (Debt : Equity ratio) x (1-t)]

= 1.4 x [1 + (0.5/0.5) x (1-0.3)]
= 1.4 (1 + 0.7)
= 1.4 x 1.7
= 2.38

c) Cost of equity = risk-free return + beta x equity risk premium

= 6% + 2.38 x 5%
= 17.9%